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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,493	06/23/2003	Ali Moayer	09623V-043900US	1092
20350	7590	10/15/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP			TIBBITS, PIA FLORENCE	
TWO EMBARCADERO CENTER			ART UNIT	
EIGHTH FLOOR			PAPER NUMBER	
SAN FRANCISCO, CA 94111-3834			2838	

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,493

Applicant(s)

MOAYER ET AL.

Examiner

Pia F Tibbits

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/8/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the host bus, the AC source, the connector pad, the first battery contact pad, the second battery contact pad, the detection contact pad must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. For example: on page 7, "the recharging module 215 recharges the rechargeable batteries 210, and comprises, in one embodiment, of standard recharge technologies known in the art"; "the charger circuit 510 in Fig. 5A one way in which recharging module 215 could be implemented"; "the detection module 220 detects when the rechargeable battery pack inserted into the device 100"; "an in-built metering system".

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3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter: "detection module"; "the at least one rechargeable battery provides power to the device **only when** the device is not coupled to the external power supply"; "connector pad"; "a first battery contact pad"; "a second battery contact pad"; "a detection contact pad". See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.

4. Applicant is reminded to use consistent language throughout the disclosure in order to facilitate finding support for the recited limitations, as well as to provide proper antecedence for all claimed limitations. For example:

the specification on page 7 describes "the charger circuit 510 in fig.5A" and "one embodiment of the **detection mechanism** is discussed in further detail with respect to Fig. 5A", while a "detection module" is claimed. Additionally fig.5A describes the (re)charger circuit, and not a **detection mechanism**.

the specification on page 8 describes "battery compartment 401", and "battery cartridge 401".

the specification on page 8 describes "battery contacts 402", and "battery contacts 407", without any explanation as to why the same element is described with 2 (two) different reference numbers.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over **Dulaney et al.** [hereinafter Dulaney][5015546].

Dulaney discloses in figures 2-5 a battery system for providing power to a device/camera, comprising: a battery compartment 20 which can accommodate at least one rechargeable battery pack 42 interchangeably with at-least one non-rechargeable battery. The patent also describes the

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rechargeable battery pack 42 could be recharged when the device is connected to external power, and that a detection module/contact or terminal 32 in communication with the device to detect when the rechargeable battery pack is inserted into the battery compartment 40 [see also the abstract; column 1, lines 18-22; column 3, lines 55-63; column 4, lines 4-20; column 5, lines 48-54; column 6, lines 4-24]. Dulaney does not disclose the rechargeable battery pack 42 including a recharging module.

With regard to the particular location of the recharging module, i.e., in the rechargeable battery pack 42, absent any criticality, is only considered to be an obvious modification as it has been held by the courts that there would be no invention in shifting the location of a structure of a device to another location if the operation of the device would not thereby be modified. *In re Japikse*, 86 USPQ 70.

7. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dulaney**, as described above, in view of **Du et al.** [hereinafter Du][5867008].

Dulaney discloses a battery system for providing power to a device, comprising a battery compartment, which can accommodate at least one rechargeable battery pack interchangeably with at least one non-rechargeable battery. The patent also describes the rechargeable battery pack could be recharged when the device is connected to external power, and that a detection module/contact or terminal in communication with the device detects when the rechargeable battery pack is inserted into the battery compartment. Dulaney does not disclose a metering module for tracking the amount of battery power in the at least one rechargeable battery.

Du discloses in figures 1-5 a self-contained, "smart" or "intelligent" rechargeable battery pack using a metering module/coulomb-counting control circuit/ gas-gauge IC Benchmarq™ bq2012, to measure charge received by and taken from the cells and to store a current charge status of those cells. The patent also includes a control circuit/Benchmarq™ bq2002T charge controller that controls a charge/discharge pass transistor in the pack to provide overcharge protection [see also the abstract; column 1, lines 27-30; column 2, lines 64-67; column 3, lines 1-9, and 53-67; column 4, lines 48-64]. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Dulaney's apparatus and include a metering module/coulomb-counting

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control circuit/ gas-gauge IC Benchmark™ bq2012, as disclosed by Du, in order to measure charge received by and taken from the cells and to store a current charge status of those cells.

As to claim 3, Dulaney discloses an external DC jack 16 in the device may be used to run the device on external power [see also column 3, lines 38-41].

As to claim 4, Dulaney discloses that external DC jack 16 in the device may be used to run the device on external power with the input plug of an AC/DC converter [see also column 3, line 42], and therefore, it is an inherent function of the device to use power from an AC source via the AC/DC converter, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or **inherent**.

As to claim 5, the external power supply being provided by a host bus of the device: the external DC jack 16 being part of the device, it is an inherent function of the device to provide external power via a host bus, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or **inherent**.

In order to expedite prosecution, claim 6 was interpreted in light of the specification which describes on page 10: "when the device 530 is not connected to the external power source 540, it is powered by the rechargeable batteries 520 through diodes 172 and D3. When the device 530 is connected to the external power source 540, the external power source 540 **provides power to both** the rechargeable batteries 520 in the device 530, as well as the device 530. The external power source 540 provides power to charge the rechargeable batteries 520 through the charger circuit 510, and to operate the device 530 through diode D1. When the external power source 540 is disconnected, the rechargeable batteries 520 provide power to the device 530". Dulaney discloses that if the electrical device senses voltage from the ground 31 and the positive terminal 35, corresponding to the rechargeable type battery pack 43 and cells 44, it can either draw power from the battery pack or charge the battery pack when external power is applied to the electrical device [column 6, lines 15-20]. With regard to the limitation of having the rechargeable type battery pack power the device when the device has no other power source: it is an inherent function of the apparatus disclosed by Dulaney to have the

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rechargeable type battery pack power the device when the device has no other power source, and MPEP 2100 states that the disclosure of a limitation may be expressed, implicit or **inherent**.

As to claim 7, Dulaney describes in fig.2 the battery compartment or case 20 includes a base 22, a cover 24, and a series of external contacts 31, 32, 33, 34 and 35 are on the outside of the base portion 22 of the casing 20, wherein contact is made when the case is pushed into the electrical device 10 [see also column 3, lines 55-63].

As to claim 8, Dulaney describes in figures 2 and 3, a first battery contact pad/first electrical contact means disposed on a first inside wall of the casing for drawing power from the battery of cells of the second type when present, a second battery contact pad/second electrical contact means disposed on second and third inside walls of the casing for drawing power from the battery of cells of the first type when present, and a detection pad/sensor for indicating to the electrical device which type of battery cells are being used [see also column 5, lines 52-55; column 6, lines 43-49]. Dulaney and Du disclose the claimed invention except for making integral the contacts for the rechargeable battery and the contacts for the nonrechargeable battery. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to make integral the contacts for the rechargeable battery and the contacts for the nonrechargeable battery, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routing skill in the art.

Howard v. Detroit Stove Works, 150 U.S. 164 (1893).

As to claim 9, Dulaney discloses that the device could be a camera [see also the abstract; column 1, lines 10-11].

As to claims 10-18, see remarks for claims 1-9 above.

With respect to the method claims 19-24: the method steps will be met during the normal operation of the apparatus described above.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

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Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related apparatus.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is (571) 272-2086. If unavailable, contact the Supervisory Patent Examiner Mike Sherry whose telephone number is (571) 272-2084. The Technology Center Fax number is (703) 872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFT

October 10, 2004

Pia Tibbits

Primary Patent Examiner